

**Request to Archive
With The National Centers for Environmental Information
For Ship and Buoy Observations from GTS BUFR
Provided by NOAA/NWS**

2015-11-05

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

National Weather Service Telecommunications Gateway

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

Marine observations from ships and buoys are undergoing a transmission format change and NCEI needs to begin collecting the newly-formatted Binary Universal Form for the Representation of meteorological data (BUFR) data to minimize losses due to this change. Previously data were transmitted on the GTS in ASCII formats, but WMO has mandated the update from ASCII to BUFR, effective immediately. NMSs are currently working to make this transition.

NWSTG has agreed to parse the new BUFR observations from ships and buoys, transmitted under WMO headers ISS* and IOB* respectively, for NCEI and place them in a directory to pull into NCEI systems.

The data volume is assumed to be small considering it is In Situ measurements and that the transition is just getting underway. Data volume will increase with time, but should not be significant. This data will eventually fully replace the ASCII formats archived in DSIs 6111-6113, so this will also help with increased storage needs.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 2015-08-19

Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

BUFR Edition 4

6. Approximate date when the dataset was or will be released to the public:

2015

7. Who are the expected users of the archived data? How will the archived data be used?

Internal NCEI use for marine/ICOADS data archive and processing. Researchers may want access to the data down the road but could be done in bulk by Customer Service.

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

No

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

This data is directly related to DSIs 6111-6113 which are ASCII ship/buoy reports that have been circulated over the GTS for many years (back to 1999 at NCEI). The new BUFR data is the same data, but in a binary format and will eventually replace the ASCII data in DSIs 6111-6113. The 2 sets will initially have some overlap but will compliment each other going forward.

10. List the input datasets and ancillary information used to produce the data.

Raw ship and buoy (moored and drifting) reports provided while at sea.

11. List web pages and other links that provide information on the data.

WMO provides format documentation for BUFR in WMO Pub No. 306 - Manual on Codes, volume I.2:

<http://www.wmo.int/pages/prog/www/WMOCodes.html>

Good information from ECMWF on the transition from ASCII to BUFR:

<https://software.ecmwf.int/wiki/display/TCBUF/Marine+data+news>

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. WMO Pub No. 306 - Manual on Codes, volume I.2: <http://www.wmo.int/pages/prog/www/WMOCodes.html>

VOS Ship Metadata from WMO Pub No. 47: <https://www.wmo.int/pages/prog/www/ois/pub47/pub47-home.htm>

VOS Ship Metadata from ESURFMAR (MeteoFrance): <ftp://esurfmar.meteo.fr/pub/Pub47/>

13. Indicate the data file format(s).

1. BUFR

14. Are the data files compressed?

No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

Not sure. NWSTG is currently configuring the directory where the data will be placed and filenames will then be available for documenting.

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

BUFR data from around the globe and from many different observing systems can be found on gulf1.ncdc.noaa.gov/pub/upload/AuthCopy/InSitu/GTS/INTL. Marine observations will be collected from that larger collection and placed in a separate directory at NWSTG for easy access and monitoring. The /INTL/ directory is temporary and will not be archived. I will work to recover available marine reports from this collection back to August for the most complete archive we can provide.

17. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume: 2GB

Number of Data Files: 4

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 5MB per Day

Data File Frequency: 1 per Month

Data Production Start: 2015-12-01

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No additional updates, revisions or replacement data are anticipated.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: Silver Spring, MD 20910

System Name: TBD

System Owner: National Weather Service Office of Operational Systems (OPS) /
NWS Telecommunications Gateway (NWSSTG)

Additional Information: System name TBD

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. No web access

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

With the transition from ASCII to BUFR for real-time GTS ship/buoy transmissions, it's urgent to begin archiving the BUFR-formatted data to minimize loss of data. The data internally supports ICOADS, ERSST, and OISST and many downstream users outside of the organization.

24. Are the data archived at another facility or are there plans to do so? Please explain.

No

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

Many internal discussions were held at NCEI and agreement was reached to allow NWSSTG to parse these data into a separate directory, similar to the current CLIMAT BUFR data. Jay Lawrimore has coordinated this effort and is the POC between NCEI and NWSSTG for this task.

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

Base funds for ICOADS will support this activity.

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

ICOADS

29. Is there a desired deadline for NCEI to archive and provide access to the data?

No deadlines for archive or access.

30. Add any other pertinent information for this request.

Due to the ongoing transition to BUFR, archive of these new sources is urgent to minimize data loss for the archive.

Data not collected immediately will not be recoverable due to the real-time nature of transmissions and lack of storage/archive of the BUFR data.